2009 DOE HYDROGEN PROGRAM and VEHICLE TECHNOLOGIES PROGRAM ANNUAL MERIT REVIEW and PEER EVALUATION MEETING BLOCK SCHEDULE

	Monday May 18
1:00	Plenary Session Starts
3:45	Break
4:15	Plenary Resumes
5:45	Reviewer Orientation Meeting
6:00	Poster Session I: Fuel Cells, Technology Validation, Systems Analysis

Schedule as of: 17-Mar-09

Crystal Gateway Marriott Hotel

Salon	Tuesday May 19						Wednesday May 20						Thursday May 21						Friday May 22					
	I	II	III	IV	V	VI	I	II	III	IV	V	VI	I	II	III	IV	V	VI	I	II	III	IV	V	VI
8:00	Reviewer Orientation Meeting						Reviewer Orientation Meeting						Reviewer Orientation Meeting											
8:15	AN	VSS	ST	FC	PD	ES	MF		BES								PD							
8:30	AN	VSS	ST	FC	PD	ES	MF	VSS	BES	FC	PD	ES	LM	APE	ST	FC	PD	ES	LM	PM	ST	FC	PD	APE
9:00	AN	VSS	ST	FC	PD	ES	MF	VSS	BES	FC	PD	ES	LM	APE	ST	FC	PD	ES	LM	PM	ST	FC	PD	APE
9:30	AN	VSS	ST	FC	PD	ES	MF	LM	BES	FC	PD	ES	LM	APE	ST	FC	PD	ES	LM	PM	ST	FC	PD	APE
10:00	AN	VSS	ST	FC	PD	ES	MF		BES	FC	PD	ES	LM	APE	ST	FC	PD	ES	LM	PM	ST	FC	PD	APE
10:30	Break						Break						Break						Break					
11:00	AN	VSS	ST	FC	PD	ES	MF	TV	BES	FC	PD	ES	LM	APE	ST	FC	PD	ES	LM	PM	ST	FC	PD	APE
11:30	AN	VSS	ST	FC	PD	ES	MF	TV	BES	FC	PD	ES	LM	APE	ST	FC	PD	ES	LM	PM	ST	FC	PD	APE
12:00	AN	VSS	ST	FC	PD	ES	MF	TV	BES	FC	PD	ES	LM	APE	ST	FC	PD	ES	LM		ST	FC		APE
12:30	Lunch						Lunch						Lunch						LM					
1:45	AN	VSS	ST	FC	PD	ES	LM	TV	BES	FC	PD	ES	LM	PM	ST	FC	PD	ES						
2:15	AN	VSS	ST	FC	PD	ES	LM	TV	BES	FC	PD	ES	LM	PM	ST	FC	PD	ES						
2:45	AN	VSS	ST	FC	PD	ES	LM	TV	BES	FC	PD	ES	LM	PM	ST	FC	PD	ES						
3:15	AN	VSS	ST	FC	PD	ES	LM	TV	BES	FC	PD	ES	LM	PM	ST	FC	PD	ES						
3:45	Break						Break						Break											
4:15	AN	VSS	ST	FC	PD	ES	LM	TV	BES	FC	PD	ES	LM	PM	ST	FC	PD	ES						
4:45	AN	VSS	ST	FC	PD	ES	LM	TV	BES	FC	PD	ES	LM	PM	ST	FC	PD	ES						
5:15	AN	VSS	ST	FC	PD	ES	LM	TV	BES	FC	PD	ES	LM	PM	ST	FC	PD							
5:45								TV									PD							
6:00	POSTER SESSION II: H2 Production & Delivery, Vehicles & Systems Simulation, Fuel Technologies, Advanced Combustion, and Energy Storage; US Fuel Cell Council Reception Room G-50 of the Dirksen Senate Office Building, 6:30 – 8:30 PM						POSTER SESSION III: H2 Storage, BES-Storage						POSTER SESSION IV: Propulsion Materials, Advanced Power Electronics, Safety, Codes & Standards, Education, and High-Temperature Materials Laboratory											
9:00																								

AN: Analysis
VSS: Veh. & Sys. Simulation
ST: Hydrogen Storage
FC: Fuel Cells
PD: Production and Delivery
ES: Energy Storage
MF: Manufacturing
LM: Light-Weight Materials
TV: Technology Validation
APE: Adv. Pwr. Electronics
BES: Basic Energy Sciences
PM: Propulsion Materials
FT: Fuels Technologies
AC: Advanced Combustion
TI: Technology Integration
ED: Education
SCS: Safety,Codes&Standards

Crystal City Marriott Hotel

Salon	Tuesday May 19		Wednesday May 20		Thursday May 21		Friday May 22	
	D	E&F	D	E&F	D	E&F	D	E&F
8:00	Reviewer Orientation Meeting		Reviewer Orientation Meeting		Reviewer Orientation Meeting			
8:15	FT	AC	TI		ED		SCS	
8:30	FT	AC	TI	AC	ED	AC	SCS	AC
9:00	FT	AC	TI	AC	ED	AC	SCS	AC
9:30	FT	AC	TI	AC	ED	AC	SCS	AC
10:00	FT	AC	TI	AC	ED	AC	SCS	AC
10:30	Break		Break		Break		Break	
11:00	FT	AC	TI	AC	ED	AC	SCS	AC
11:30	FT	AC	TI	AC	ED	AC	SCS	AC
12:00	FT	AC	TI	AC	ED	AC	SCS	
12:30	Lunch		Lunch		Lunch			
1:45	FT	AC	TI	AC	ED	AC		
2:15	FT	AC	TI	AC	ED	AC		
2:45	FT	AC	TI	AC	ED	AC		
3:15	FT	AC	TI	AC	ED	AC		
3:45	Break		Break		Break			
4:15	FT	AC	TI	AC	ED	AC		
4:45	FT	AC	TI	AC	ED	AC		
5:15	FT	AC		AC	ED	AC		
5:45					ED			

Tuesday, May 19 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal Gateway	Crystal Gateway
Salon	**I**	**II**	**III**	**IV**
8:15 AM	AN0, Joseck, DOE: Systems Analysis Session Introduction	VSS0, Slezak, DOE: Vehcile & Systems Simulation Overview	ST0, Dillich, DOE: Hydrogen Storage - Session Review	FC0, Leader, DOE: Fuel Cells Program Element Overview
8:30 AM	AN01, Levene, NREL: HyDRA: Hydrogen Demand and Resource Analysis Tool	VSS01, Francfort, INL: Advanced Vehicle Testing Activity (AVTA)	ST01, Klebanoff, SNL: Metal Hydride Center of Excellence	FC01, Fenton, U of Central Florida: Lead Research and Development Activity for DOE's High Temperature, Low Relative Humidity Membrane Program
9:00 AM	AN02, Simon, LLNL: H2-W The Producers Value of Water in a Hydrogen Economy	VSS02, Sell, GM & Ford with Chrysler possible: PHEV Technology Advancement and Demonstration Activity	ST02, Clemens, Stanford U: Thermodynamically Tuned Nanophase Materials for Reversible Hydrogen Storage: Structure & Kinetics of Nanoparticle and Model System Materials	FC02, Mittelsteadt, Giner Electrochemical Systems, LLC: Dimensionally Stable High Temperature Membranes
9:30 AM	AN03, Kumar, ANL: Hydrogen Quality Issues for Fuel Cell Vehicles	VSS03, Carlson, ANL: Advanced Vehicle Benchmarking Activities - PHEV & HEV	ST03, Kartin, SNL: Discovery and Development of Metal Hydrides for Reversible On-board Storage	FC03, Lvov, Penn State : New Proton Conductive Composite Materials with Co-continuous Phases Using Functionalized and Crosslinkable VDF/CTFE Fluoropolymers
10:00 AM	AN04, Diakov, NREL: Macro-System Model	VSS04, Carlson, ANL: Cold/Hot PHEV Testing	ST04, Fang, Univ. of Utah: Chemical Vapor Synthesis and Discovery of H2 Storage Materials: Li-Al-Mg-N-H System	FC04, Mays, U of Tennessee: Poly(cyclohexadiene)-Based Polymer Electrolyte Membranes for Fuel Cell Applications
10:30 AM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
11:00 AM	AN05, Melaina, NREL: Discrete Choice Analysis of Consumer Preferences for Refueling Availability	VSS05, Duoba, ANL: PHEV & EV SAE test procedure development and Tools Used	ST05, Graetz, BNL: Aluminum Hydride Regeneration	FC05, McGrath, Virginia Tech: Advanced Materials for Proton Exchange Membranes
11:30 AM	AN06, Lutz, SNL: Analysis of Energy Infrastructures and Potential Impacts from an Emergent Hydrogen Fueling Infrastructure	VSS06, Daw, ORNL: PHEV Engine and Emissions Models	ST06, Zidan, SRNL: Electrochemical Reversible Formation of Alane	FC06, Gervasio, Arizona State University: Protic Salt Polymer Membranes: High-Temperature Water-Free Proton-Conducting Membranes
12:00 PM	AN07, Bush, NREL: Hydrogen Deployment System Modeling Environment (HyDS-ME)	VSS07, Knee, ORNL: MD & HD Drive Cycle Data Collection for Modeling Expansion	ST07, Jensen, Univ. of Hawaii: Fundamental Studies of Advanced High-Capacity, Reversible Metal Hydrides	FC07, Creager, Clemson University: Fluoroalkyl-Phosphonic-Acid-Based Proton Conductors
12:30 PM	**LUNCH**	**LUNCH**	**LUNCH**	**LUNCH**
1:45 PM	AN08, Tolley, RCF, Inc.: Analysis of Hydrogen Production and Delivery Infrastructure as a Complex Adaptive System	VSS08, Markel, NREL: Light Duty Plug-In Hybrid Electric Vehicle Analysis	ST08, Johnson, Univ. of Pittsburgh/Georgia Tech: First-Principles Modeling of Hydrogen Storage in Metal Hydride Systems	FC08, Litt, Case Western Reserve University: Rigid Rod Polyelectrolytes: Effect on Physical Properties Frozen-in Free Volume:
2:15 PM	AN09, Penev, NREL: Adapting the H2A Hydrogen Production Cost Analysis Model to Stationary Applications	VSS09, Pagerit, ANL: Evaluation of Advanced Vehicle Technologies to Support GPRA/PDS	ST09, Liu, HRL Laboratories: Thermodynamically Tuned Nanophase Materials for Reversible Hydrogen Storage	FC09, Pintauro, Vanderbilt University: NanoCapillary Network Proton Conducting Membranes for High Temperature Hydrogen/Air Fuel Cells
2:45 PM	AN10, Grasman, U Missouri-Rolla: Hydrogen and Fuel Cell Analysis: Lessons Learned from Stationary Power Generation	VSS10, Rousseau, ANL: Assessment of Component Requirements and Fuel Efficiency of PHEVs	ST10, Tang, UTRC: Catalyzed Nano-Framework Stablized High Density Reversible Hydrogen Storage Systems	FC10, Lipp, FuelCell Energy, Inc.: High Temperature Membrane with Humidification-Independent Cluster Structure
3:15 PM	AN11, Greene, ORNL: Modeling the Transition to Hydrogen	VSS11, Rousseau, ANL: Development of a Plug & Play software architecture industry standard	ST11, Udovic, NIST: Neutron Characterization and Calphad in Support of the Metal Hydride Center of Excellence	FC11, Herring, Colorado School of Mines: Novel Approaches to Immobilized Heteropoly Acid (HPA) Systems for High Temperature, Low Relative Humidity Polymer-Type
3:45 PM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
4:15 PM	AN12, Wang, ANL: Fuel-Cycle Analysis of Hydrogen-Powered Fuel-Cell Systems with the GREET Model	VSS12, Fenske, ANL: Friction & Wear Reduction for Heavy Vehicle Applications	ST12, Lasher, TIAX: Analyses of Hydrogen Storage Materials and On-Board Systems	FC12, Goldbach, Arkema: Improved, Low-Cost, Durable Fuel Cell Membranes
4:45 PM	AN13, Olsen, University of Illinois-Urbana-Champaign: Evaluation of the Potential Environmental Impacts from Large-Scale Use and Production of Hydrogen in Energy and Transportation Applications	VSS13, Routbort, ANL: Overview of Thermal Management	ST13, Ahluwalia, ANL: System Level Analysis of Hydrogen Storage Options	FC13, Hamrock, 3M: Membranes and MEA's for Dry, Hot Operating Conditions
5:15 PM	AN14, Grieb, Tetra Tech: Potential Environmental Impacts of Hydrogen-Based Transportation and Power Systems	VSS14, Salari, LLNL: Truck Aerodynamic Drag Reduction Activities	ST14, Anton, SRNL: Overview of Hydrogen Storage Engineering Center of Excellence	FC14, Kerr, LBNL: New Polyelectrolyte Materials for High Temperature Fuel Cells

Tuesday, May 19 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal City	Crystal City
Salon	**V**	**VI**	**D**	**E&F**
8:15 AM	PD0, Farmer, DOE: Hydrogen Production Program Element	ES0, Howell, US DOE: Overview: OVT Electrochemical Energy Storage	FT0, Stork, DOE: Fuel Technologies Overview	ACE0, Singh, DOE: High Efficiency Clean Combustion Engines
8:30 AM	PD01, Lomax, H2Gen Inno. Inc.: Low-Cost Hydrogen Distributed Production System Development	ES01, Santini, ANL: PHEV Requirements and Targets Validation (ANL)	FT01, Bunting, ORNL: APBF effects on Combustion	ACE01, Musculus, Sandia National Laboratory (SNL): Heavy Duty Combustion: Heavy Duty Low Temperature and Diesel Combustion, Heavy-Duty
9:00 AM	PD02, Wang, PNNL: Bio-Derived Liquids Reforming	ES02, Barnett, TIAX LLC: PHEV Battery Cost Assessments	FT02, Sluder, ORNL: FACE Overview.	ACE02, Miles, Sandia National Laboratory (SNL): Light Duty Combustion Research: Small Bore Advanced Combustion Engine R&D, Light-Duty Combustion Modeling (UWI)
9:30 AM	PD03, Rozmiarek, Virent Energy Sys.: Hydrogen Generation from Biomass-Derived Carbohydrates via Aqueous-Phase Reforming Process	ES03, Snyder, United States Advanced Battery Consortium: USABC Overview	FT03, McCormick, NREL: Quality, Performance, and Emission Impacts of Biodiesel Blends	ACE03, Kaiser, Sandia National Laboratory (SNL): Hydrogen Combustion Research
10:00 AM	PD04, Ozkan, Ohio State U: Investigation of Reaction Networks and Active Sites in Bio-Ethanol Steam Reforming over Co-based	ES04, Fulop, A123Systems: HEV Battery Development	FT04, Mueller, SNL: Sandia - Heavy-Duty Fuels Research	ACE04, Dec, Sandia National Laboratory (SNL): HCCI Fundamentals (Advanced Combustion HCCI Dual Engine)
10:30 AM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
11:00 AM	PD05, Balachandran, ANL: Distributed Reforming of Renewable Liquids via Water Splitting Using Oxygen Transport Membrane (OTM)	ES05, Ashtiani, Enerdel: Plug-in Hybrid Battery Development	FT05, Przesmitski, NREL: Intermediate Ethanol Blends	ACE05, Picket, Sandia National Laboratory (SNL): Low Temperature Diesel Combustion X-Cut Research
11:30 AM	PD06, Lin, Arizona State U: Zeolite Membrane Reactor for Water-Gas-Shift Reaction for Hydrogen Production	ES06, Engstrom, Johnson Controls-Saft: Plug-in Hybrid Battery Development	FT06, Sjoberg, SNL: Sandia - Advanced Lean-Burn DI Spark Ignition Fuels Research	ACE06, Steeper, Sandia National Laboratory (SNL): Automotive HCCI Engine Research
12:00 PM	PD07, Hopkins, Pall Corp.: High-Performance, Durable, Palladium-Alloy Membrane for Hydrogen Separation & Purification	ES07, Alamgir, Compact Power: Plug-in Hybrid Battery Development	FT07, Sluder, ORNL: NPBF effects on aftertreatment and emissions	ACE07, Oefelein, Sandia National Laboratory (SNL): LES Engine Modeling
12:30 PM	**LUNCH**	**LUNCH**	**LUNCH**	**LUNCH**
1:45 PM	PD08, Wong, General Atomics: Solar High Temperature Cadmium Oxide Water Splitting Cycle	ES08, Tataria, Celgard and Entek: Battery Separator Development	FT08, Szybist, ORNL: NBPF effects on Combustion	ACE08, Van Blarigan, Sandia National Laboratory (SNL): Free-Piston Engine (can be combined w fuels CPS 13418)
2:15 PM	PD09, T-Raissi, UCF/FSEC: Solar High-Temperature Water-Splitting Cycle with Quantum Boost	ES09, Murphy, INL, ANL, and SNL: Battery Testing and Analysis	FT09, Zigler, NREL: Advanced Petroleum Based Fuels Activities	ACE09, Wallner, Argonne National Laboratory (ANL): H2 Internal Combustion Engine Research – Towards the 45 percent Efficiency Goal
2:45 PM	PD10, Weimer, U of Colorado: Solar-Thermal Manganese and Ferrite Based Water Splitting Cycles	ES10, Bloom, ANL: Battery Testing and Analysis	FT10, Wu, GM: E85 Optimization	ACE10, Powell, Argonne National Laboratory (ANL): Fuel Spray Research on Light-Duty Injestion Systems
3:15 PM	PD11, Lewis, ANL: Copper-Chlorine Themochemical Cycle	ES11, Roth, SNL: Battery Abuse Testing	FT11, Woodrow, Malhe: Optimally Controlled Flexible Fuel Powertrain System	ACE11, Ciatti, Argonne National Laboratory (ANL): Light-Duty Engine Combustion and Emissions Control Research (Visualization of In-Cylinder Combustion R&D)
3:45 PM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
4:15 PM	PD12, Pickard, SNL/GA/CEA: Sulfur-Iodine Thermochemical Cycle	ES12, Pesaran, NREL: Thermal Management Studies and Modeling	FT12, Agarwal, Ford: E85 Optimized Engine Application	ACE12, Aceves, Lawrence Livermore National Laboratory (LLNL): Modeling of High Efficiency Clean Combustion Engines
4:45 PM	PD13, Summers, SRNL: Hybrid Sulfur Thermochemical Cycle	ES13, Barnes, US DOE/ ANL: Lithium Supply and Lithium Battery Recycling	FT13, Yilmaz , Bosch: E85 Optimization	ACE13, Pitz, Lawrence Livermore National Laboratory (LLNL): Chemical Kinetic Research on HCCI & Diesel Fuels
5:15 PM	PD14, Herring, INL/ANL/Ceramatec: High Temperature Electrolysis System	ES14, Henriksen, ANL: Applied Battery Research Overview	FT14, Confer, Delphi: E85 Optimization	ACE14, Torres, Los Alamos National Laboratory (LANL): KIVA Modeling to Support Diesel Combustion Research

Wednesday, May 20 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal Gateway	Crystal Gateway
Salon	**I**	**II**	**III**	**IV**
8:15 AM	MF0, Devlin, DOE: Manufacturing Session Overview			
8:30 AM	MF01, Ulsh, NREL: Fuel Cell MEA Manufacturing R&D	VSS15, Bohn, ANL: Ultra-capacitor hybrid energy storage system	BES01, Chabal, University of Texas-Dallas: Novel Theoretical and Experimental Approaches for Understanding and Optimizing Hydrogen-Sorbent Interactions in	FC15, Berry, Kettering University: Novel PEM Membrane and Multiphase CFD Modeling of PEM Fuel Cell
9:00 AM	MF07, Rieke, PNNL: Digital Fabrication of Catalyst Coated Membranes	VSS16, Shidore, ANL: Battery systems performance studies - HIL components testing	BES02, Power, University of California, Davis: Activation of Hydrogen under Ambient Conditions by Main Group Molecules	FC16, Johnston, LANL: Applied Science for Electrode Cost, Performance, and Durability
9:30 AM	MF02, Legzdins, Ballard Material Products: Reduction in Fabrication Costs of Gas Diffusion Layers	LM01, Lara-Curzio, ORNL: Materials Characterization Capabilities of the High Temperature Materials Laboratory and Commercial Successes Enabled Thereby	BES03, Eddaoudi, University of South Florida: Novel Porous Metal-Organic Frameworks (MOFs) for Hydrogen Storage	FC17, Debe, 3M: Advanced Cathode Catalysts and Supports for PEM Fuel Cells
10:00 AM	MF03, Kaye, Ultracell Corporation: Modular, High-Volume Fuel Cell Leak-Test Suite and Process		BES04, Hemley, Carnegie Institute of Washington: Novel Molecular Materials for Hydrogen Storage Applications	FC18, Motupally , UTC Fuel Cells: Highly Dispersed Alloy Cathode Catalyst for Durability
10:30 AM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
11:00 AM	MF04, Busby, W.L. Gore: Manufacturing of Low Cost, Durable Membrane Electrode Assemblies Engineered for Rapid Conditioning	TV0, Garbak, DOE: Technology Validation	BES05, Mao, SLAC National Accelerator Laboratory: Bonding and Structures of Light Element-Hydrogen Systems under Extreme Conditions	FC19, Wang, PNNL: Development of Alternative and Durable High Performance Cathode Supports for PEM Fuel Cells
11:30 AM	MF05, Puffer, RPI: Adaptive Process Controls and Ultrasonics for High Temperature PEM MEA Manufacture	TV01, Wipke, NREL: Controlled Hydrogen Fleet & Infrastructure Analysis (Note: This presentation may start as early as 11:15)	BES06, Pfeifer, University of Missouri: Networks of Boron-Doped Carbon Nanopores for Low-Pressure Reversible Hydrogen Storage	FC20, Myers, ANL: Non-Platinum Bimetallic Cathode Electrocatalysts
12:00 PM	MF06, Sirosh, Quantum Fuel Systems Technologies Worldwide, Inc.: Development of Advanced Manufacturing Technologies for Low		BES07, Zidan, Savannah River National Laboratory: Elucidation of Hydrogen Interaction Mechanisms with Metal-Doped Carbon	FC21, Zelenay, LANL: Advanced Cathode Catalysts
12:30 PM	**LUNCH**	**LUNCH**	**LUNCH**	**LUNCH**
1:45 PM	LM02, Warren, ORNL: Overview of Low-Cost Carbon Fiber (LCCF) R&D; FISIPE VA-PAN Textile Development	TV02, Casey, Chevron: Controlled Hydrogen Fleet and Infrastructure Demonstration and Validation Project	BES08, Wolverton, Northwestern University: Kinetics and Thermodynamics of Metal and Complex Hydride Nanoparticles	FC22, Garzon, LANL: Effects of Fuel and Air Impurities on PEM Fuel Cell Performance
2:15 PM	LM03, Baker, ORNL: Lignin Based LCCF Precursors	TV03, Gearhart, Ford: Hydrogen Fuel Cell Vehicle & Infrastructure Demonstration Program Review	BES09, Sutter, Brookhaven National Laboratory: Atomistic Transport Mechanisms in Reversible Complex Metal Hydrides	FC23, Goodwin, Clemson University: Effects of Impurities on Fuel Cell Performance and Durability
2:45 PM	LM04, Paulauskas, ORNL: Advanced Stabilization of Carbon-Fiber Precursors/Advanced Oxidation of Carbon-Fiber	TV04, Grasman, DaimlerChrysler: Hydrogen to the Highways	BES10, Ceder, Massachusetts Institute of Technology: Theory and Modeling of Materials for Hydrogen Storage	FC24, Molter, U of Connecticut: The Effects of Impurities on Fuel Cell Performance and Durability
3:15 PM	LM05, Eberle, ORNL: LCCF -- Precursor and Fiber Evaluation / LCCF --Commercialization & DOE Planning, Warren - Critical Path Status	TV05, Sell, General Motors: Hydrogen Vehicle and Infrastructure Demonstration and Validation	BES11, Autrey, Pacific Northwest National Laboratory: Control of Hydrogen Release and Uptake in Condensed Phases	FC25, Swamy, Intelligent Energy: Development and Demonstration of a New-Generation High Efficiency 1-10 kW Stationary PEM Fuel Cell System
3:45 PM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
4:15 PM	LM06, Warren, ORNL: Overview of Polymer Composites R&D Norris/Frame - Composite Underbody Joining	TV06, Heydorn, Air Products: Validation of an Integrated Hydrogen Energy Station	BES12, Ge, Southern Illinois University: First Principles-Based Simulation of Hydrogen Interactions in Complex Hydrides	FC26, Strayer, UTC Power: Stationary PEM Fuel Cell Power Plant Verification
4:45 PM	LM07, Kia, GM: High-Volume Processing of Composites	TV07, Heydorn, Air Products : California Hydrogen Infrastructure Project	BES13, Conradi, Washington University: In-Situ NMR Studies of Hydrogen Storage Systems	FC27, Chartrand, Plug Power Inc.: Intergovernmental Stationary Fuel Cell System Demonstration
5:15 PM	LM08, Kia, GM: Focal Project 4 -- Composite Underbody and Seat	TV08, Eudy, NREL: Technology Validation: Fuel Cell Bus Evaluations	BES14, Chou, Georgia Institute of Technology: First-Principles Studies of Phase Stability and Reaction Dynamics in Complex Metal Hydride	FC28, Bessette, Acumentrics Corporation: Development of a Low Cost 10kW Tubular SOFC Power System – Phase II
5:45 PM		TV09, Rocheleau, Hawaii Natural Energy Inst.: Hawaii Hydrogen Center for Development and Deployment of Distributed Energy Systems		

Wednesday, May 20 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal City	Crystal City
Salon	**V**	**VI**	**D**	**E&F**
8:15 AM		ES15, Srinivasan, LBNL: Overview of Batteries for Transportation	TI0, Smith, DOE: Clean Cities Overview, goals, performance	
8:30 AM	PD15, James, DTI: Biological Hydrogen Production Boundary Level Analysis	ES16, Battaglia, LBNL: Electrode Construction and Testing	TI07, Melendez/Hopson, NREL/ORNL: Cleans Cities Tool Development and demonstrations	ACE15, Daw, Oak Ridge National Laboratory (ORNL): Stretch Efficiency for Combustion Engines
9:00 AM	PD16, Melis, UC Berkeley: Maximizing Light Utilization Efficiency and Hydrogen Production in Microalgal Cultures	ES17, Sastry, U of Michigan: Microscale Electrode Design Using Coupled Kinetic, Thermal and Mechanical Modeling	TI09, Scarpino, NETL: Clean Cities Financial Awards (examples of current projects we are finishing up, metrics on what they have accomplished, discussion o new solicitation	ACE16, Wagner, Oak Ridge National Laboratory (ORNL): Achieving/Demonstrating Vehicle Technologies Engine Fuel Efficiency Goals
9:30 AM	PD17, Ghirardi, NREL: Biological Systems for Hydrogen Photoproduction	ES18, Newman, U of California - Berkeley: Design of PHEVs and Electrolyte Properties	TI12, German, X PRIZE Foundation : Automotive X Prize - Education Grant	ACE17, Wagner, Oak Ridge National Laboratory (ORNL): Achieving High Efficiency Clean Combustion in Multi-Cylinder Light-Duty Engines
10:00 AM	PD18, Maness, NREL: Fermentative and Electrohydrogenic Approaches to Hydrogen Production	ES19, Zaghib, Hydro-Québec: Low-Cost SiO-Graphite and Olivine-Based Materials for Li-ion Batteries	TI01, Anstrom, Pennsylvania State University: GATE Center for In-Vehicle, High Power Energy Storage Systems	ACE18, Edwards, Oak Ridge National Laboratory (ORNL): Ignition Control for HCCI – (Delphi CRADA)
10:30 AM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
11:00 AM	PD19, Woodbury, ASU: Development of Water Splitting Catalysts Using a Novel Molecular Evolution Approach	ES20, Thackeray, ANL: Lithium Metal Oxide Cathodes	TI02, Cunningham, University of California - Davis: GATE Center for Fuel Cell Hydrogen Hybrid Vehicles	ACE19, Assanis, University Of Michigan: University Consortium On Low Temperature Combustion For High Efficiency, Ultra Low Emission Engines
11:30 AM	PD20, Shimko, Avalence LLC: Innovative 15X Scale-up of Core Apparatus Producing Hydrogen via Electrolysis	ES21, Shao-Horn, MIT: The Origin of Surface Instability of Lithium Positive Electrode Materials upon Cycling: Combined XPS and TEM Studies	TI03, Guezennec, Ohio State University: GATE Center for Advanced Automotive Propulsion	ACE20, Choi, Oak Ridge National Laboratory (ORNL) : CLEERS Coordination and Development of Catalyst Process Kinetic Data: Coordination of Cross-Cut Lean
12:00 PM	PD21, Hamdan, Giner: PEM Electrolyzer Incorporating an Advanced Low Cost Membrane	ES22, Whittingham, SUNY-Binghamton: The Synthesis and Characterization of Substituted Olivines and Layered Manganese	TI04, Irick, University of Tennessee: GATE Center for Advanced Hybrid Propulsion and Control Systems	ACE21, Herling, Pacific Northwest National Laboratory (PNNL): PNNL CLEERS Activities: CLEERS Diesel Soot Filter Characterization, NOx
12:30 PM	**LUNCH**	**LUNCH**	**LUNCH**	**LUNCH**
1:45 PM	PD22, Miller, University of Hawaii at Manoa: Photoelectrochemical Hydrogen Production Overview	ES23, Manthiram, U of Texas @ Austin: Stabilized Spinels and Nano Olivines	TI05, Lee, University of Illinois at Urbana-Champaign: GATE Center for Advanced Automotive Bio-fuels Combustion Engines	ACE22, Lee, Argonne National Laboratory (ANL): Advanced Diesel Particulate Filter (DPF) Research
2:15 PM	PD23, James, DTI: Photoelectrochemical Hydrogen Production Boundary Level Analysis	ES24, Doeff, LBNL: Olivines and Substituted Layered Materials	TI06, Mallick, University of Michigan - Dearborn: GATE Center for Lightweighting Automotive Materials and Processing	ACE23, Gallant, Pacific Northwest National Laboratory (PNNL): Diesel Soot Filter Characterization and Modeling for advanced substrates (CRADA with DOW Automotive)
2:45 PM	PD24, Heske, UNLV: PEC Material Characterization	ES25, Richardson, LBNL: Phase Behavior and Solid State Chemistry in Olivines	TI08, Nelson, Virginia Tech: GATE Center for Automotive Fuel Cell Systems	ACE24, Peden, Pacific Northwest National Laboratory (PNNL): Mechanism of Sulfur Poisoning of NOx Adsorber Materials (CRADA
3:15 PM	PD25, Jaramillo, Stanford University: MoS2/WS2 Bases PEC Material Systems	ES26, Ceder, MIT/SUNY-Stony Brook: Olivine and Layered Materials (Characterization, Rate Performance and Stability)	TI10, Vaidya, The University of Alabama at Birmingham: GATE Center for Advanced Lightweight Materials Technologies	ACE25, Peden, Pacific Northwest National Laboratory (PNNL): Characterization of aging mechanisms in advanced catalysts for the selective catalytic reduction
3:45 PM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
4:15 PM	PD26, Liu, Media and Process Technology Inc.: Carbon Molecular Sieve Membrane as Reactor/Separator for Water Gas	ES27, Grey, SUNY-Stony Brook: NMR Spectroscopy of Cathode Materials	TI11, Wahlstrom, Argonne National Laboratory (ANL): Advanced Vehicle Competitions	ACE26, Crocker, University Of Kentucky : Investigation of Aging Mechanisms in Lean NOx Traps
4:45 PM	PD27, Bain, NREL: Indirectly Heated Biomass Gasification	ES28, Yang, BNL: Characterization of New Cathode Materials using Synchrotron-based X-ray Techniques	TI13, O'Hara, DOE: Update on Legislative Items ?	ACE27, Harold, University Of Houston: Kinetic and Performance Studies of the Regeneration Phase of Model PT/RH/Ba NOx Traps for
5:15 PM	PD28, Vanderspurt, UTRC: A Novel Slurry Based Biomass Reforming Process	ES29, Goodenough, U of Texas @ Austin: Performance Enhancement of Cathodes with Conductive Polymers		ACE28, Greenbaum, Health Effects Institute: Advanced Collaborative Emissions Study (ACES) – Status Report

Thursday, May 21 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal Gateway	Crystal Gateway
Salon	**I**	**II**	**III**	**IV**
8:15 AM				
8:30 AM	LM09, Kia, GM: Composite Crash Energy Management	APE01, Ozpineci, ORNL: An Active Filter Approach to the Reduction of the DC Link Capacitor	ST15, Ott, LANL: Overview - DOE Chemical Hydrogen Storage Center of Excellence	FC29, Ahluwalia, ANL: Fuel Cell Systems Analysis
9:00 AM	LM10, Baker, ORNL: Testing Machine for Automotive Composites (TMAC) LM10, Norris, ORNL: Development of Next Generation P4	APE02, Su, ORNL: Current Source Inverters for HEVs and FCVs	ST16, Sneddon, U of Penn.: Amineborane-Based Chemical Hydrogen Storage	FC30, James, DTI: Mass Production Cost Estimation for Direct H2 PEM Fuel Cell System for Automotive Applications
9:30 AM	LM11, Smith, PNNL: Predictive Modeling of Polymer Composites -- PNNL/Predictive Modeling of Polymer Composites -- ORNL	APE03, Marlino, ORNL: High-Temperature, High-Voltage Fully Integrated Gate Driver Circuit	ST17, Burrell , LANL: Chemical Hydrogen Storage R&D at Los Alamos National Laboratory	FC31, Sinha , TIAX: Direct Hydrogen PEMFC Manufacturing Cost Estimation for Automotive Applications
10:00 AM	LM12, Smith, PNNL: Natural Fiber Composite Retting, Preform Manufacturing and Molding	APE04, Su, ORNL: Utilizing the Traction Drive Power Electronics System to Provide Plug-in Capability for PHEVs	ST18, Autrey, PNNL: PNNL Progress as Part of the Chemical Hydrogen Storage Center of Excellence	FC32, More, ORNL: Microstructural Characterization of PEM Fuel Cell MEAs
10:30 AM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
11:00 AM	LM13, Feng, ORNL: Dynamic Characterization of Spot Welds for AHSSs	APE05, Balachandran, ANL: High Dielectric Capacitors for Power Electronics	ST19, Dixon, UA: Main Group Element and Organic Chemistry for Hydrogen Storage and Activation	FC33, Shore, BASF: Platinum Group Metal Recycling Technology Development
11:30 AM	LM14, Grant, PNNL: Friction Stir Spot Welding of AHSSs -- ORNL/ Friction Stir Spot Welding of AHSSs -	APE06, Lai, Va Tech: Soft Switching Inverter for Reducing Switching and Power Losses	ST20, Linehan, Rohm and Haas: Low-Cost Precursors to Novel Hydrogen Storage Materials	FC34, Jacobson, NIST: Neutron Imaging Study of the Water Transport in Operating Fuel Cells
12:00 PM	LM15, Moore, SNL: NDE Inspection of Adhesive Bonds in Metal-Metal Joints	APE07, Taylor, Delphi Automotive: Scalable High Temperature Inverter for HEVs	ST21, Schubert, U.S. Borax: Development of a High-Efficiency Process for the Regeneration of Spent Chemical Hydrogen Carriers	FC35, Borup, LANL: Water Transport Exploratory Studies
12:30 PM	**LUNCH**	**LUNCH**	**LUNCH**	**LUNCH**
1:45 PM	LM16, Quinn, GM: Magnesium Powertrain Cast Components	PM01, Wilson, ORNL: Power Electronics Materials Compatability	ST22, Dillon, NREL: Overview of the DOE Hydrogen Sorption Center of Excellence	FC36, Cole, CFD Research Corp: Water Transport in PEM Fuel Cells: Advanced Modeling, Material Selection, Testing, and Design
2:15 PM	LM17, Quinn, GM: High-Integrity Magnesium Automotive Castings (HI-MAC)	PM02, Woo, LLNL: NOx Sensor Development	ST23, Zhou, Miami Univ.-Ohio: A Biomimetic Approach to Metal-Organic Organic Frameworks with High H2 Uptake	FC37, Kandlikar, Rochester Institute of Technology: Visualization of Fuel Cell Water Transport and Performance Characterization Under Freezing Conditions
2:45 PM	LM18, Quinn, GM: Ultra-Large Castings of Aluminum and Magnesium	PM03, Fenske, ANL: Fuel Injector Holes	ST24, Yang, U of Michigan : Hydrogen Storage by Spillover	FC38, Cross, Nuvera Fuel Cells: Subfreezing Start/Stop Protocol for an Advanced Metallic Open-Flowfield Fuel Cell Stack
3:15 PM	LM19, Quinn, GM: Warm-Forming Magnesium Sheet	PM04, Smith, PNNL: Hydrogen Compatible Materials	ST25, Yakobson, Rice U. : Optimization of Nano-Carbon Materials for Hydrogen Sorption	FC39, Mirza, Honeywell: Development of Thermal and Water Management System for PEM Fuel Cells
3:45 PM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
4:15 PM	LM20, Quinn, GM: Magnesium Front-End Research & Development	PM05, Lin, ORNL: Mechanical Reliability of PS Actuators	ST26, Dillon, NREL: NREL Research as Part of the Hydrogen Sorption Center of Excellence	FC40, Tortorelli, ORNL: Nitrided Metallic Bipolar Plates
4:45 PM	LM21, Quinn, GM: Magnesium Front-End Design & Development	PM06, Kass, ORNL: Evaluation of Materials via ACERT Engine	ST27, Liu, Argonne: Hydrogen Storage through Nanostructured Polymeric Materials	FC41, Adrianowycz, GrafTech International, Ltd.: Next Generation Bipolar Plates for Automotive PEM Fuel Cells
5:15 PM	LM22, Lavender, PNNL: Low-Cost Titanium	PM09, Watkins, ORNL: Durability Diesel Engine Partic. Filters		FC42, Parsons, UTC Fuel Cells: Low Cost, Durable Seals for PEM Fuel Cells

Thursday, May 21 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal City	Crystal City
Salon	**V**	**VI**	**D**	**E&F**
8:15 AM	PD29, Gardiner, DOE: Hydrogen Delivery Program Element		ED0, Cooper, DOE: Education Session - DOE Overview	
8:30 AM	PD30, Mintz, ANL: Hydrogen Delivery Infrastructure Analysis	ES30, Kumta, U. of Pittsburg: High Capacity Reversible Nanoscale Heterostructures: Novel Anodes for Lithium-ion Batteries	ED01, Placet, PNNL: Hydrogen Safety: First Responder Education	ACE29, Lawson, NREL: Real World Studies of Ozone Formation as a function of NOx reductions – Summary and Implications for Air Quality Impacts of Non-
9:00 AM	PD31, Sozinova, NREL: Hydrogen Delivery Component Model	ES31, Thackeray, ANL: Intermetallic Anodes	ED02, Caton, NREL: Hydrogen Education for Code Officials	ACE30, Storey, ORNL: Measurements of Mobile Source Air Toxics from New Emissions Control Technologies
9:30 AM	PD32, Schmura, Concurrent Tech. Corp: Hydrogen Energy Station Analysis in Northeastern US and Hydrogen Sensors for Infrastructure	ES32, Whittingham, SUNY-Binghamton: Nano-structured Materials as Anodes	ED03, Blekhman, Cal State LA University Auxiliary Services, Inc.:	ACE31, Parks, Oak Ridge National Laboratory (ORNL): ORNL 2.01: Measurement and Characterization of Lean NOx Adsorber Regeneration and Desulfation: Controlling NOx from Multi-mode Lean DI engines
10:00 AM	PD33, Lord Snider, SNL: Geologic Hydrogen Storage	ES33, Kostecki, LBNL: 3-D Nanostructured Carbon-Tin Composite Anodes	ED04, Lehman, Humboldt State University Sponsored Programs Foundation:	ACE32, Partridge, Oak Ridge National Laboratory (ORNL): ORNL T1.01: NOx Aftertreatment CRADA with Cummins
10:30 AM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
11:00 AM	PD34, Heshmat, Mohawk Innovative Technologies: Oil-Free, Centrifugal Hydrogen Compression Technology Demonstration	ES34, Srinivasan, LBNL: Kinetics of Lithium Insertion into Silicon Anodes	ED05, Keith, Hydrogen Education Curriculum Path at Michigan Technological University:	ACE33, Toops, Oak Ridge National Laboratory (ORNL): NOx Adsorber R&D (CRADA between ORNL and International Truck and Engine Company)
11:30 AM	PD35, Osborne, Concepts NREC: Development of a Centrifugal Hydrogen Pipeline Gas Compressor	ES35, Dillon, NREL: Nano-Structured Metal Oxide Films	ED06, Sleiti, Bachelor of Science □Engineering Technology□Hydrogen and Fuel Cell Education Program Concentration:	ACE34, Frazier, Cummins: Light-Duty Efficient Clean Combustion
12:00 PM	PD38, Toseland, APCI: Reversible Liquid Carriers for an Integrated Production, Storage and Delivery of Hydrogen	ES36, Dudney, ORNL: Investigation of Metallic Lithium Anode	ED07, Mann, University of North Dakota:	ACE35, Patton, General Motors Corporation: High-Efficiency Clean Combustion Engine Designs for Spark-Ignition and Compression-
12:30 PM	**LUNCH**	**LUNCH**	**LUNCH**	**LUNCH**
1:45 PM	PD36, Schwartz, Praxair: Advanced Hydrogen Liquefaction Process	ES37, Srinivasan, LBNL: Overview of New Electrolyte Projects (3 projects)	ED08, Dever, Carolina Tractor & Equipment Co. Inc.:	ACE36, Sun, Ford Motor Company: Advanced Boost System Development for Diesel HCCI Application
2:15 PM	PD37, Barclay, Prometheus Energy: Active Magnetic Regenerative Liquefier	ES38, Balsara, LBNL: New Lithium-based Ionic Liquid Electrolytes that Resist Salt Concentration Polarization	ED09, Hitchcock, Houston Advanced Research Center:	ACE37, Ojeda, Navistar International Corporation: Low Temperature Combustion Demonstrator for High Efficiency Clean Combustion
2:45 PM	PD39, Aceves, LLNL: High Pressure, Low Temperature Hydrogen Tube Trailers	ES39, Kerr, LBNL: Interfacial Behavior of Electrolytes	ED10, Baxter-Clemmons , The South Carolina Hydrogen and Fuel Cell Alliance:	ACE38, Fiveland, Caterpillar Inc. : Development of Enabling Technologies for High Efficiency, Low Emissions Homogeneous
3:15 PM	PD40, Newhouse, Lincoln Composites: Development of High Pressure Hydrogen Storage Tank for Storage and Gaseous Truck Delivery	ES40, Smith, U. of Utah: Molecular Dynamics Simulation Studies of Electrolytes and Electrolyte-Electrode Interfaces	ED11, Christopher, Commonwealth of Virginia:	ACE39, Kruiswyk, Caterpillar: Engine System Approach to Exhaust Energy Recovery
3:45 PM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
4:15 PM	PD42, Adams, SRNL: Hydrogen Permeability and Pipeline Integrity/Fiber Reinforced Composite Pipeline	ES41, Srinivasan, LBNL: Overview of New Electrolyte Projects (3 projects)	ED12, Rinebold, Connecticut Center for Advanced Technology, Inc.:	ACE40, Stanton, Cummins Inc. : Enabling High Efficiency Clean Combustion
4:45 PM	PD41, Sofronis, U of Illinois: A Combined Materials Science/Mechanics Approach to the Study of Hydrogen Embrittlement of	ES42, Srinivasan, LBNL: Summary and Future Plans	ED13, Valente, Ohio Fuel Cell Coalition:	ACE41, Nelson, Cummins: Exhaust Energy Recovery
5:15 PM	PD43, Feng, ORNL: H2 Permeability and Integrity of Steel Welds		ED14, Serfass, Technology Transition Corporation:	ACE42, Zhang, Detroit Diesel: Heavy Truck Engine Development & HECC
5:45 PM	PD50, Muralidharan, SECAT: Hydrogen Delivery in Steel Pipelines		ED15, Kubert, Clean Energy States Alliance:	

Friday, May 22 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal Gateway	Crystal Gateway
Salon	**I**	**II**	**III**	**IV**
8:15 AM				
8:30 AM	LM23, Heimbuch, A/SP: Overview of Advanced High-Strength Steel (AHSS) R&D	PM08, Grant, PNNL: Tailored materials for advanced CIDI Engines	ST28, Cooper, Air Products: Enabling Discovery of Materials with a Practical Heat of H2 Adsorption	FC43, Norrick, Cummins: Diesel Fueled SOFC System for Class 7/Class 8 On-Highway Truck Auxiliary
9:00 AM	LM24, Heimbuch, A/SP: NSF- 3d Generation Advanced High Strength Steel	PM07, Lavender, PNNL: Enhancements by Shock Peening (Cummins)	ST29, Liu, Duke U: Optimizing the Binding Energy of Hydrogen on Nanostructured Carbon Materials through Structure Control and Chemical Doping	FC44, Blake, Delphi: Solid Oxide Fuel Cell System Development for Auxiliary Power in Heavy Duty Vehicle Applications
9:30 AM	LM25, Smith, PNNL: Characterization of Thermomechanical Behavior of TRIP Steels -- ORNL and PNNL	PM10, Wereszczak, ORNL: Thermoelectric Mechanical Reliability	ST30, Kittrell, Rice U. : Nanoengineering the Forces of Attraction in a Metal-Carbon Array for H2 Uptake at Ambient Temperatures	FC45, Duong, Superprotonic, Inc.: Solid Acid Fuel Cell Stack for APU Applications
10:00 AM	LM26, Heimbuch, A/SP: Strain Rate Characterization -- A/SP/Strain Rate Characterization -- ORNL/ Sheet-Steel Fatigue Characteristics	PM11, Singh, ORNL: Thermoelectric Materials by Design, Computational Theory and Structure	ST31, Pfeifer, Univ. Missouri - Columbus: Development of Boron-Substituted, High-Surface Area Carbon Materials Made from	FC46, Mitlitsky, Bloom Energy Corp.: Low-Cost Co-Production of Hydrogen and Electricity
10:30 AM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
11:00 AM	LM27, Heimbuch, A/SP: Hydroform Materials and Lubricants/Lightweight Rear Chassis Structure; Future	PM12, Gruen, ANL: Thermoelectric Nanocarbon Ensembles	ST32, Long, UC Berkeley/LBNL: A Synergistic Approach to the Development of New Hydrogen	FC47, Tao, Materials & Systems Research: Development of Novel Efficient Solid-Oxide Hybrid for Co-
11:30 AM	LM28, Daniels, ANL: Overview of Recycling Technology R&D	PM13, Hendricks, PNNL: Thermoelectric Materials	ST33, Yaghi, UCLA: Hydrogen Storage in Metal-Organic Frameworks and Novel Hydrogen	FC48, Ludwiszewski, Lilliputian Systems: Silicon Based SOFC Chip for Portable Consumer Electronics
12:00 PM	LM29, Jody, ANL: Post-Shred Materials Recovery Technology Development and Demonstration		ST34, Aceves, LLNL: Cryogenic Capable Pressure Vessels for Vehicular Hydrogen Storage	FC49, Cheekatamarla, Nanodynamics Energy: Biogas Fueled Solid Oxide Fuel Cell Stack
12:30 PM	LM30, Pomykala , ANL: Recycling Technology Validation			

Friday, May 22 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal City	Crystal City
Salon	**V**	**VI**	**D**	**E&F**
8:15 AM			SCS0, Ruiz, DOE: Safety, Codes, and Standards	
8:30 AM	PD44, Ma, Worcester Polytechnic Institute: Composite Pd and Alloy Porous Stainless Steel Membranes for Hydrogen Production and Process Intensification	APE08, El-Refaie , General Electric Global: Scaleable Low Cost High Performance IPM Motor	SCS01, Rivkin, NREL: Hydrogen Codes and Standards and Permitting	ACE43, Mendler, Envera LLC: Low Cost Fast Response Actuator
9:00 AM	PD45, Morreale, NETL-Office of Research and Development: Hydrogen Separation (Reaction Chemistry and Engineering)	APE09, Smith, General Motors: Integrated Traction Drive System	SCS02, Burgess, NREL: Hydrogen Codes and Standards	ACE44, Hall, University of Texas at Austin: On-Board Engine Exhaust Particulate Matter Sensor for HCCI and Conventional Diesel Engines
9:30 AM	PD46, Jack, Eltron Research Inc.: Scale-up of Hydrogen Transport Membranes for IGCC and FutureGen Plants	APE10, Narumanchi, NREL: Advanced thermal interface materials for power electronics	SCS03, Somerday, SNL: Materials Compatibility	ACE45, Yang, General Motors Corporation: Develop Thermoelectric Technology for Automotive Waste Heat Recovery
10:00 AM	PD47, Coulter, Southwest Research Institute: Cost-Effective Method for Producing Self-Supporting Pd Alloy Membrane for Use in the Efficient	APE11, Abraham, NREL: Characterization and development of Advanced Heat Transfer Technologies	SCS04, Fassbender, PNNL: Hydrogen Safety Tools: Software and Hardware	ACE46, Schock, Michigan State University : Thermoelectric Conversion of Waste Heat to Electricity
10:30 AM	**BREAK**	**BREAK**	**BREAK**	**BREAK**
11:00 AM	PD48, Emerson, United Technologies: Experimental Demonstration of Advanced Palladium Membrane Separators for Central High-Purity Hydrogen	APE12, Bharathan, NREL: Research and Development of Air Cooling Technology for Power Electronics Thermal Control	SCS05, Rockward, LANL: Hydrogen Fuel Quality	ACE47, LaGrandeur, BSST LLC - Amerigon: Direct Energy Conversion from Waste Heat Recovery
11:30 AM	PD49, Barton, Western Res. Ins. & U of Wyoming Res.Corp.: Integration of a Structural Water Gas Shift Catalyst with a Vanadium Alloy Hydrogen Transport Device	APE13, Benion, NREL: Power Electronic Thermal System Performance and Integration	SCS06, Moen, SNL: Hydrogen Release Behaviour	ACE48, Gundlach, General Motors Corporation: Automotive Thermoelectric HVAC
12:00 PM		APE14, O'Keefe, NREL: Thermal Stress and Reliability for Advanced Power Electronics and Electric Machines	SCS07, Weiner, PNNL: Hydrogen Safety Panel	

Monday, May 18 - Poster Presentations

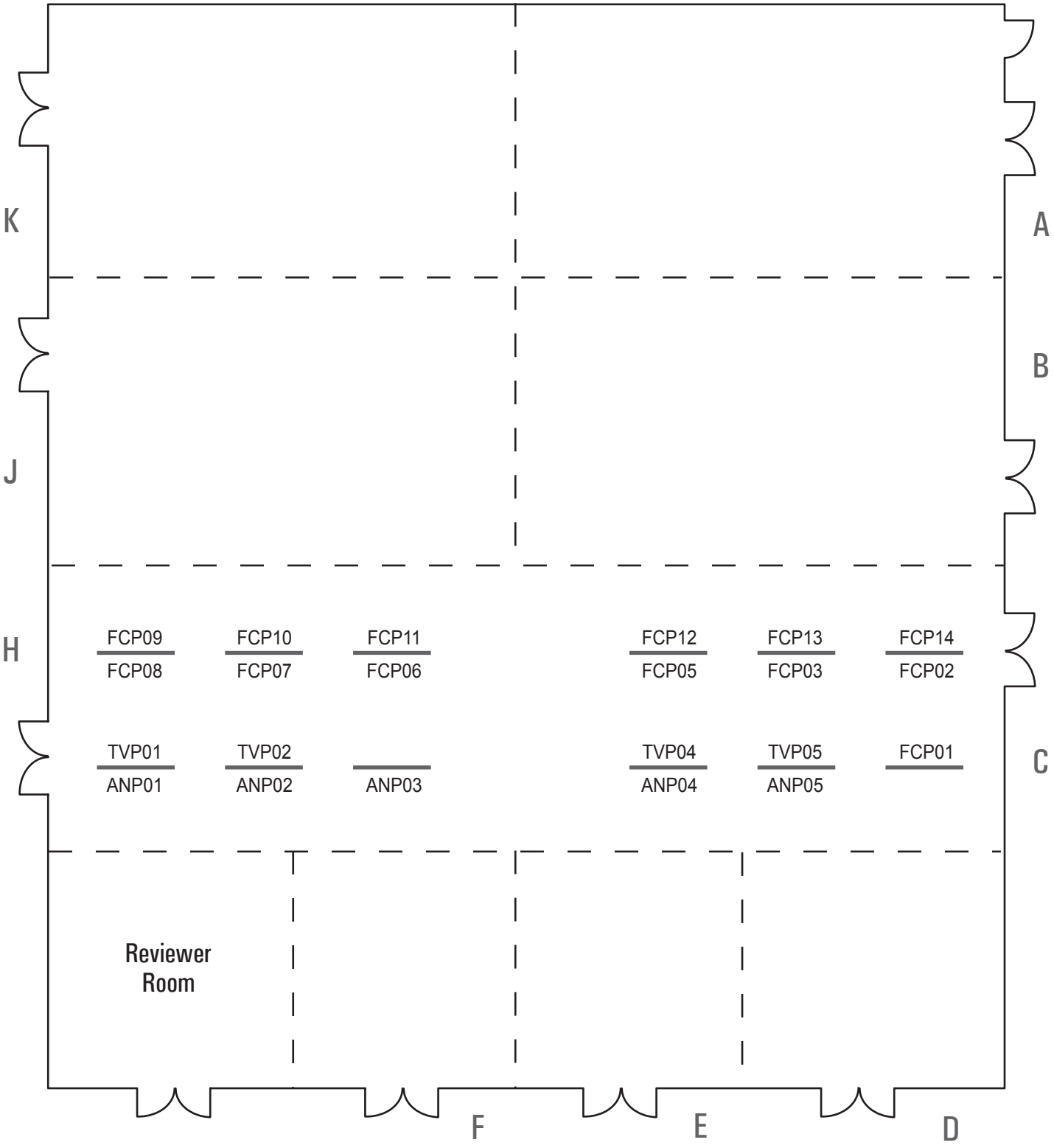
Crystal Gateway Hotel - Grand Ballroom, 6-9 PM

Systems Analysis
ANP01, Placet, PNNL: Program Benefits
ANP02, Duffy, NREL: DOE Hydrogen Program Risk Analysis in Support of EERE's Portfolio Analysis
ANP03, Colella, SNL: Dynamic System Modeling of Integrated Fuel Cell System with Hydrogen Co-Production
ANP04, Brown, PNNL: A Business Case for Hydrogen Co-Production
ANP05, Ulsh, NREL: The Economics of Biogas Co-Production
Technology Validation
TVP01, Egelton, Southeast Michigan Council of Governments (SEMCOG): Detroit Commuter Hydrogen Project
TVP02, Goodman, Tanadgusix Foundation: Tanadgusix Foundation Hydrogen Project
TVP04, Parsons Marshall, Texas Hydrogen Highway: Texas Hydrogen Highway
TVP05, Portwood, Florida Hydrogen Initiative: Florida Hydrogen Initiative
Fuel Cells
FCP01, Bloom, ANL: Fuel Cell Testing at the Argonne Fuel Cell Test Facility
FCP02, Rockward, LANL: Component Benchmarking Subtask Reported: USFCC Durability Protocols and Technically-Assisted Industrial and University Partners
FCP03, Lawrance, IdaTech: Research & Development for Off Road Fuel Cell Applications
FCP05, Vogel, Plug Power: International Micro-CHP Fuel Cell Demonstration
FCP06, VanZee, U of South Carolina: University of South Carolina Fuel Cell Design Project (FY 2006)
FCP07, Chuang, U of Akron: Development of 5-Kilowatt Prototype Coal-Based Fuel Cell
FCP08, King, Michigan Technological University: Center for Fundamental and Applied Research in Nanostructured and Lightweight Materials
FCP09, Zhu, Nanosys, Inc.: Engineered Nanostructured MEA Technology for Low Temperature Fuel Cells
FCP10, Mauritz, U of So. Mississippi: Alternate Fuel Cell Membranes for Energy Independence (hydrocarbon)
FCP11, Perna, Rolls Royce Fuel Cell Systems Inc: Extended Durability Testing of an External Fuel Processor for a Solid Oxide Fuel Cell (SOFC)
FCP12, Reifsnider, U of South Carolina: Hydrogen Fuel Cell Development in Columbia, SC (FY 2008)
FCP13, Rehbock, Martin County Economic Development Corp: Martin County Hydrogen Fuel Cell Development
FCP14, Trenger, Stark State College of Technology: Fuel Cell Balance of Plant Reliability Testbed Project

Poster Session Guide

May 18, Monday Poster Session

Salons C & H



Tuesday, May 19 - Poster Presentations

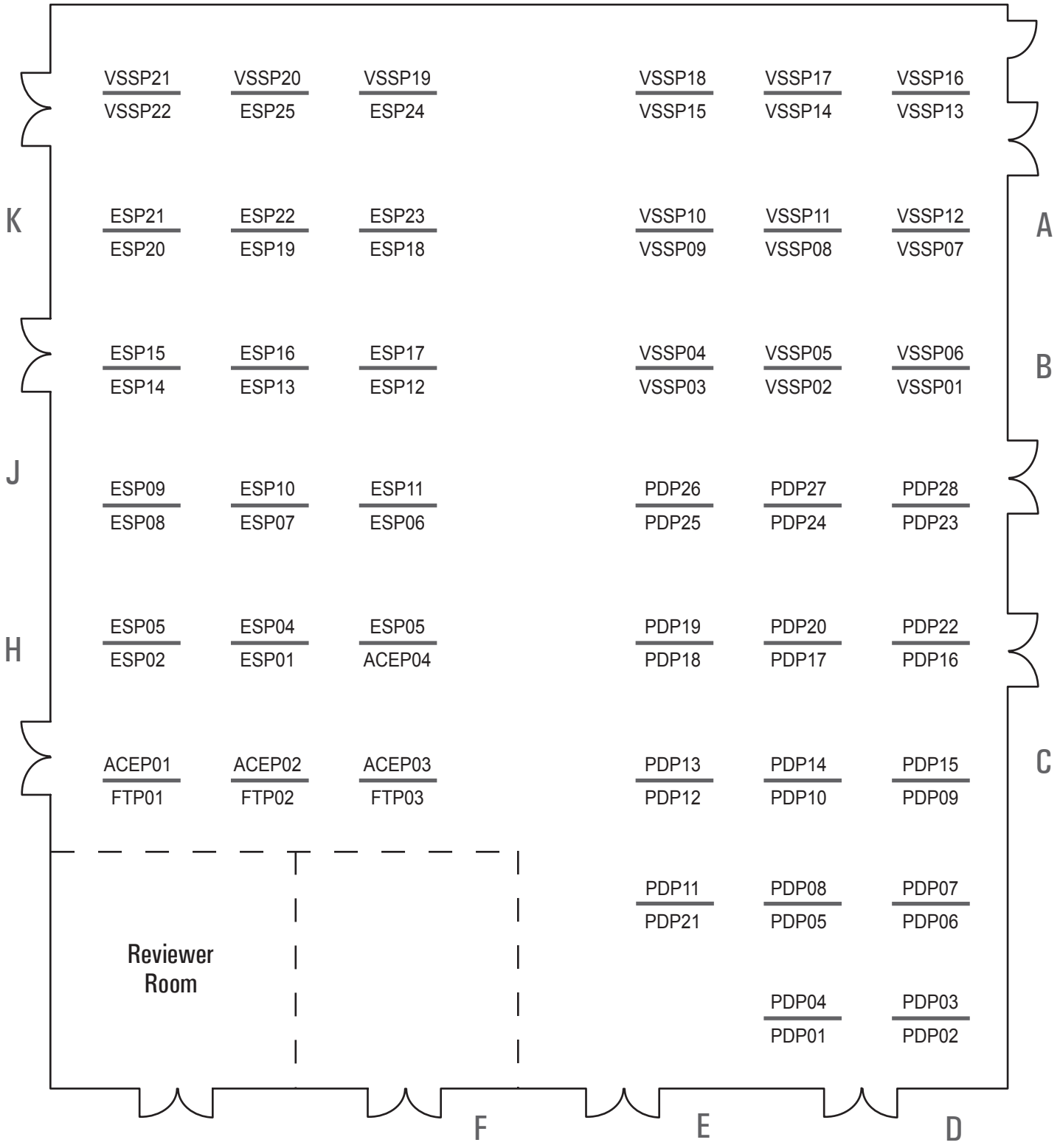
Crystal Gateway Hotel - Grand Ballroom, 6-9 PM

Hydrogen Production and Delivery
PDP01, McFarland, U. of CA Santa Barbara: Iron Oxide Based PEC Materials
PDP02, Turner, NREL: III-V Based PEC Materials
PDP03, Yan, NREL: PEC Materials Theory and Modeling
PDP04, Madan, MVSystems: Photoelectrochemical Hydrogen Production
PDP05, Gaillard, HNEI: Tungsten Oxide Based PEC Materials
PDP06, Kaneshiro, HNEI: Copper Chalcoprite Based PEC Materials
PDP07, Ingler, University of Toledo: Critical Research for Cost-Effective Photoelectrochemical Production of Hydrogen
PDP08, Mazumder, U. Arkansas Little Rock: Photoelectrochemical Hydrogen Production
PDP09, Misra, U of Nev. Reno: Photoelectrochemical Generation of Hydrogen Using Heterostructural Titania Nanotube Arrays
PDP10, Adams, SRNL: Composite Bulk Amorphous Hydrogen Purification Membranes
PDP11, Holbery, PNNL: Advanced Hydrogen Composite Tank Development
PDP12, Semelsberger, LANL: Catalytic Solubilization and Conversion of Lignocellulosic Feedstocks
PDP13, Payzant, ORNL: Novel Low-Temperature Proton Transport Membranes
PDP14, Welk, SNL: Ultra-thin Proton Conduction Membranes for H2 Stream Purification with Protective Getter Coatings
PDP15, Czernik, NREL: Distributed Bio-Oil Reforming
PDP16, Ahmed, ANL: Pressurized Steam Reforming of Bio-Derived Liquids for Distributed Hydrogen Production
PDP17, Harrison, NREL: Renewable Electrolysis Integrated System Development and Testing
PDP18, Xu, J Craig Venter Institute: Hydrogen from Water in a Recombinant Oxygen-Tolerant Cyanobacterial System
PDP19, Douglas, Montana State University: Use of Biological Materials and Biologically Inspired Materials for Hydrogen Catalysts
PDP20, Somerday, SNL: Enabling Hydrogen Embrittlement Modeling of Structural Steels
PDP21, Heshmat, Mohawk Innovative Technologies: Centrifugal Compressor Operating Beyond the Bending Critical Speed
PDP22, Lipp, FuelCell Energy: Development of Highly Efficient Solid State Electrochemical Hydrogen Compressor (EHC)
PDP23, Shimko, Gas Equipment Engineering Corporation: Innovative Hydrogen Liquefaction Cycle
PDP24, Smith, ORNL: Life Cycle Verification of Polymeric Storage Liners
PDP25, Fenske, ANL: Coatings for Centrifugal Compression
PDP26, Gore, Purdue University: Purdue Hydrogen Systems Laboratory
PDP27, Martin, Edison Materials Tech Center: Developing Improved Materials to Support the Hydrogen Economy
PDP28, Goswami, U of South Florida: Hydrogen Production and Fuel Cell Research
Vehicle and Systems Simulation
VSSP01, Ajayi, ANL: Boundary Layer Lubrication
VSSP02, Thornton, NREL: Integrated Vehicle Thermal Management Systems Analysis/Modeling
VSSP03, Brooker, NREL: Renewable Fuel and Hybrid Vehicle Modeling & Analysis
VSSP04, Erdemir, ANL: Low-Friction Hard Coatings
VSSP05, Fenske, ANL: Parasitic Energy Losses
VSSP06, Gonder, NREL: Route Based Controls Potential for Efficiency Gains
VSSP07, Lohse-Busch, ANL : MATT PHEV development test platform Utilization
VSSP08, Markel, NREL: GPS Travel Survey Data Collection & Analysis
VSSP09, Proc, NREL: Cool Cab, Truck Thermal Load Reductions
VSSP10, Routbort, ANL: Nanofluid Development for Engine Cooling Systems
VSSP11, Singh, ANL: Erosion of Nanofluid Materials
VSSP12, Wagner, ORNL: Enabling High Efficiency Ethanol Engines - Delphi CRADA
VSSP13, Walkowicz, NREL: Heavy Vehicle Field Evaluations
VSSP14, Yu, ANL: Efficient Cooling in Engines with Nucleated Boiling
VSSP15, Rousseau, ANL: PSAT Heavy Duty
VSSP16, Wallner, ANL: Fuel efficiency potential of hydrogen vehicles
VSSP17, Rousseau, ANL: PSAT model validation (GM 2Mode)
VSSP18, Rousseau, ANL: PHEV control strategy development
VSSP19, Keller, ANL : D3 website database
VSSP20, Killian, Eaton Corporation: Heavy Truck Friction & Wear Reduction Technologies
VSSP21, Timofeeva, ANL: Nanofluid Development and Characterization
VSSP22, Yu, ANL: Heat Transfer of Nanofluids
Fuel Technologies
FTP01, Li, Univ. Illinois Urbana-Champaign: Biodiesel for HCCI
FTP02, Wang, ANL: Full-Cycle Energy and Emissions Analysis
FTP03, , Reaction Design: Fuel Kinetics Models
Advanced Combustion
ACEP01, Larson, Sandia National Laboratory (SNL) : CLEERS:Surface Chemistry (Old title: Benchmark Kinetics for NOx Adsorbers and Catalyzed DPF)
ACEP02, Peden, Pacific Northwest National Laboratory (PNNL): Degradation mechanisms in advanced catalysts for urea selective catalytic reduction(CRADA with General Moto
ACEP03, Rappe, Pacific Northwest National Laboratory (PNNL): Advanced Combustion Engine low temperature CO and HC Oxidation (CRADA with Caterpillar)
ACEP04, Elsner, Hi-Z: High ZT Thermoelectric Materials
Energy Storage
ESP01, Dees, ANL: Electrochemistry Cell Model
ESP02, Abraham, ANL: Electrochemistry Diagnostics
ESP03, Gering , INL: Statistical DOEx at INL
ESP04, Jansen, ANL: Low Temperature Performance Characterization and Modeling
ESP05, Gering, INL: Advanced Chemistry: Electrolyte Modeling
ESP06, McLarnon, LBNL: Electrochemistry Diagnostics
ESP07, Yoon, BNL: Electrochemistry Diagnostics
ESP08, Roth, SNL: Abuse Tolerance Improvement
ESP09, Amine, ANL: Engineering of high energy cathode material
ESP10, Amine, ANL: Developing new high energy gradient concentration cathode material
ESP11, Amine, ANL: Developing a new high capacity anode with long life
ESP12, Lu, ANL: Streamlining the optimization of Li-Ion battery electrodes
ESP13, Thackeray, ANL: Design & evaluation of high capacity cathode materials
ESP14, Kang, ANL: Development of high-capacity cathode materials with integrated structures
ESP15, Abraham, ANL: Development of novel electrolytes & additives for PHEV applications
ESP16, Jansen, ANL: Develop improved methods of making inter-metallic anodes
ESP17, Vaughey, ANL: Lithium metal anodes
ESP18, Belharouak, ANL: Evaluation of Li2M2+SiO4 (M=Fe, Mn, Co) two-electron cathodes
ESP19, Abraham, ANL: Structural investigations of layered oxide materials for PHEV applications
ESP20, Jow, Army Research Laboratory: High Voltage Electrolytes
ESP21, Amine, ANL: New high power Li2MTi6O14 anode material
ESP22, Smith, Naval Surface Warfare Center: Ultracapacitor Development
ESP23, Amine, ANL: Develop & evaluate materials & additives that enhance thermal & overcharge abuse
ESP24, Lu, ANL: Screen electrode materials and cell chemistries
ESP25, Jansen, ANL: Fabricate PHEV cells for testing & diagnostics

Poster Session Guide

May 19, Tuesday Poster Session

Grand Ballroom



Wednesday, May 20 - Poster Presentations

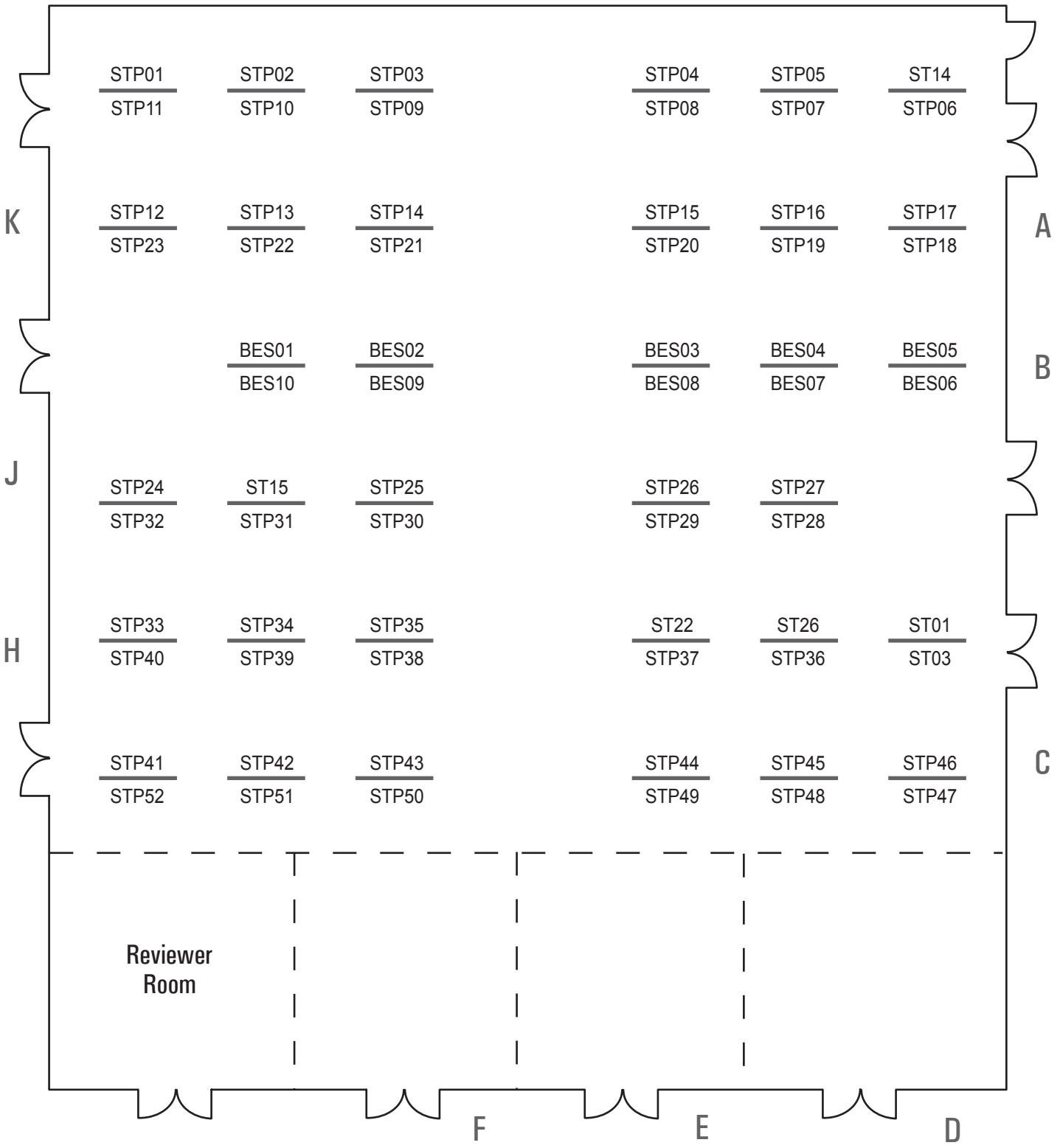
Crystal Gateway Hotel - Grand Ballroom, 6-9 PM

Hydrogen Storage
STP01, Liu, Quantum: H2 Tank Manufacturing Optimization
STP02, Fan, Gas Technology Institute: Electron-Charged Hydrogen Storage Materials
STP03, Cabasso, State University of New York: Polymer-Based Activated Carbon Nanostructures for H2 Storage
STP04, Liu, Quantum: Low-Cost High-Efficiency High-Pressure H2 Storage
STP05, Eckert, UC-Santa Barbara: Hydrogen Storage Materials with Binding Intermediate between Physisorption and Chemisorption
ST14, Anton, SRNL: Overview of Hydrogen Storage Engineering Center of Excellence
STP06, Motyka, SRNL: SRNL Technical Work: Modeling, Design, and Testing of Metal Hydride and Adsorbent Systems
STP07, Herling, PNNL: Systems Engineering of Chemical Hydride, Pressure Vessel, and Balance of Plant for On-Board Hydrogen Storage
STP08, Mosher, United Technologies: Advancement of Systems Designs and Key Engineering Technologies for Materials Based Hydrogen Storage
STP09, Semelsberger, LANL: Chemical Hydride Rate Modeling, Validation, and System Demonstration
STP10, Reiter, NASA JPL: Key Technologies, Thermal Management, and Prototype Testing for Advanced Solid-State Hydrogen Storage Systems
STP11, Thornton, NREL: System Design, Analysis and Modeling for Hydrogen Energy Storage
STP12, Kumar, General Motors: Modeling Hydrogen Storage System Filling and Operation to Improve Overall Performance
STP13, Siegel, Ford Motors: Ford/BASF Activities in Support of the Hydrogen Storage Engineering Center of Excellence
STP14, Drost, Oregon State: Microscale Enhancement of Heat and Mass Transfer for Hydrogen Energy Storage
STP15, Baldwin, Lincoln Composites: Development of Improved Composite Pressure Vessels for Hydrogen Storage
STP16, Liu, Univ. of Oregon: Novel Boron and Nitrogen Substituted Cyclic Compounds for Use as Liquid Hydrogen Carriers
STP17, Goldberg, U of Washington: Solutions for Chemical Hydrogen Storage: Dehydrogenation of B-N Bonds
STP18, Power, UC Davis: Chemical Hydrogen Storage Using Ultra-High Surface Area Main Group Materials & The Development of Efficient Amine-Borane Regeneration Cycles
STP19, Macdonald, Penn State: Electrochemical Hydrogen Storage Systems
STP20, Hawthorne, U of Missouri: Chemical Hydrogen Storage Using Aluminum-Ammonia-Borane Complexes
STP21, Hwang, Michigan Tech Univ.: Novel Metal Perhydrides for Hydrogen Storage
STP22, Gore, Purdue University: Purdue Hydrogen Systems Laboratory
STP23, Stefanakos, U of South Florida: Hydrogen Storage Research
STP24, Lefenfeld, SiGNa: NaSi and Na-SG Powder Hydrogen Fuel Cells
ST15, Ott, LANL: Overview - DOE Chemical Hydrogen Storage Center of Excellence
STP25, Baumann, LLNL: Carbon Aerogels for Hydrogen Storage
STP26, Geohegan, ORNL: Single-Walled Carbon Nanohorns for Hydrogen Storage and Catalyst Supports
STP27, Ahn, CalTech: Enhanced Hydrogen Dipole Physisorption: Henry's Law and Isosteric Heats in Microporous Sorbents
STP28, Wu, U of North Carolina: Characterization of Hydrogen Adsorption by NMR
STP29, Chung, Penn State : Advanced Boron and Metal Loaded High Porosity Carbons
STP30, Gross, HyEnergy: Best Practices for Characterizing Hydrogen Storage Properties of Materials
STP31, Yaghi, UCLA: A Joint Theory and Experimental Project in the High-Throughput Synthesis and Testing of Porous COF and ZIF Materials for On-Board Vehicular Hydrogen Stor
STP32, Currier, LANL: Novel Concept Using an Electric Field to Increase the Hydrogen Binding Energy in Hydrogen Adsorbents
STP33, Hupp, Northwestern University: Novel Hydrogen Adsorbent Materials with Increased Hydrogen Binding Energy through Metal Doping
STP34, Lueking, Penn State University: Development of Novel Nanoporous Materials for Use as Hydrogen Adsorbents
STP35, Neumann, NIST: Neutron Characterization in Support of the Hydrogen Sorption Center of Excellence
ST22, Dillon, NREL: Overview of the DOE Hydrogen Sorption Center of Excellence
ST26, Dillon, NREL: NREL Research as Part of the Hydrogen Sorption Center of Excellence
ST01, Klebanoff, SNL: Metal Hydride Center of Excellence
ST03, Kartin, SNL: Discovery and Development of Metal Hydrides for Reversible On-board Storage
STP36, Robertson, U of Illinois: Reversible Hydrogen Storage Materials – Structure, Chemistry and Electronic Structure
STP37, Brown, ORNL: Metal Borohydrides Borohydrides and Aluminum Hydrides
STP38, Reiter, Jet Propulsion Laboratory: Development and Evaluation of Advanced Hydride Systems for Reversible Hydrogen Storage
STP39, Chandra, UNR: Effect of Trace Elements on Long-Term Cycling and Aging Properties of Complex Hydrides for Hydrogen Storage
STP40, Anton, SRNL: Hydrogen Storage Materials Characterization as Part of the MHCoE
STP41, Ahn, California Institute of Technology: Synthesis of Nanophase Materials for Thermodynamically Tuned Reversible Hydrogen Storage
STP42, Zhao, OSU : Lightweight Intermetallics for Hydrogen Storage and Development of High Capacity, Reversible Hydrogen Storage Materials Using Boron-Based Metal Hydrides
STP43, Goudy, Delaware State University: Center for Hydrogen Storage Research at Delaware State University
STP44, Shaw, U of Connecticut: Effects and Mechanisms of Mechanical Activation on Hydrogen Sorption/Desorption of Nanoscale Lithium Nitrides
STP45, Miller, SwRI: National Testing Laboratory for Solid-State Hydrogen Storage Technologies
STP46, Bhattacharyya, U of Arkansas: An Integrated Approach for Hydrogen Production and Storage in Complex Hydrides of Transitional Elements
STP47, Wolverton, Northwestern University: Design of Novel Multi-Component Metal Hydride-Based Mixtures for Hydrogen Storage
STP48, Allendorf, Sandia-Livermore: Development of Materials with Tunable Thermodynamics through the Stabilization of Nanosized Particles
STP49, Anton, SRNL: Fundamental Reactivity Testing and Analysis of Hydrogen Storage Materials & Systems
STP50, Mosher, UTRC: Quantifying & Addressing the DOE Material Reactivity Requirements with Analysis & Testing of Hydrogen Storage Materials & Systems
STP51, Dedrick, Sandia-Livermore: Chemical and Environmental Reactivity Properties of Metal Hydrides within the Context of Systems
STP52, Gogotsi, U of Penn./Drexel Univ.: Carbide-Derived Carbons with Tunable Porosity Optimized for Hydrogen Storage
Basic Energy Sciences - Hydrogen Storage
BES01, Chen, Florida International University: Influence of Pressure on Physical Property of Ammonia Borane and Its Re-hydrogenation
BES02, Gallego, Oak Ridge National Laboratory: Atomistic Mechanisms of Metal-Assisted Hydrogen Storage in Nanostructured Carbons
BES03, Larese, Oak Ridge National Laboratory: Application of Neutron Scattering on Hydrogen Storage
BES04, Long, Lawrence Berkeley National Laboratory: A Synergistic Approach to the Development of New Classes of Hydrogen Storage Materials
BES05, Pecharsky, Ames Laboratory: Complex Hydrides - A New Frontier for Future Energy Applications
BES06, Sloan, Colorado School of Mines: Molecular Hydrogen Storage in Novel Binary Clathrate Hydrates at Near-Ambient T&P
BES07, Sneddon, University of Pennsylvania: Chemical Hydrogen Storage in Ionic Liquid Media
BES08, Van de Walle, University of California, Santa Barbara: Computational Studies of Hydrogen Interactions with Storage Materials
BES09, Weitering, Oak Ridge National Laboratory: Quantum Tuning of Chemical Reactivity for Storage and Generation of Hydrogen Fuels
BES10, Yildirim, University of Pennsylvania: From Fundamental Understanding to Predicting New Nanomaterials for High-Capacity Hydrogen Storage

Poster Session Guide

May 20, Wednesday Poster Session

Grand Ballroom



Thursday, May 21 - Poster Presentations

Crystal Gateway Hotel - Grand Ballroom, 6-9 PM

Advanced Power Electronics
APEP01, Anderson, Ames Lab: High Performance Magnetic Material for Advanced Electric Drives
APEP02, Burress, ORNL: A New Class of Switched Reluctance (SR) Motors
APEP03, Burress, ORNL: Benchmarking of Competitive Technologies
APEP04, Chintivalli, ORNL: Wide Bandgap Materials
APEP05, Dirk, SNL: High Dielectric Capacitors for Power Electronics
APEP06, Goodarzi, U.S. Hybrid : Bi-directional dc-dc Converter
APEP07, Hsu, ORNL: Novel Flux Coupling Machine without Permanent Magnets - U Machine
APEP08, Su, ORNL: A Segmented Drive System with a Small DC Bus Capacitor
APEP09, Wiles, ORNL: Direct Cooled Power Electronics Substrate
Safety, Codes & Standards
SCSP01, Nakarado, Regulatory Logic: Codes & Standards for the Hydrogen Economy
SCSP03, Lieberman, Intellegent Optical: Hydrogen Sensors
Education
EDP01, Nagle, Lawrence Hall of Science at UC-Berkeley: Hydrogen Technology and Energy Curriculum (HyTEC)
EDP02, Schmoyer, ORNL: Hydrogen Knowledge and Opinions Assessment
EDP03, Spruill, NEED: H2 Educate! Hydrogen Education for Middle Schools
Propulsion Materials
PMP01, Blau, ORNL: Mechanisms of Oxidation-Enhanced Wear in Diesel Exhaust Valves
PMP02, Blau, ORNL: Materials for High Pressure Fuel Injection Systems
PMP04, Erdemir, ANL: Super Hard Coating Systems
PMP05, Gaines, ANL: Lithium-Ion Battery Recycling Issues
PMP06, Govindarajan, ORNL: Solder Joint Analysis
PMP07, Govindarajan, ORNL: Materials for HCCI Engines
PMP08, Hsu, NETL: Surface Modification GW
PMP09, Hsu, NETL: IEA Annex on Materials For Transportation support
PMP10, Lance, ORNL: Materials Issues Associated with EGR Systems
PMP11, Lin, ORNL: Durability of ACERT Engine Components
PMP12, Maziasz, ORNL: Materials for advanced engine valve train
PMP13, Maziasz, ORNL: Materials for Advanced Turbocharger Designs
PMP14, Narula, ORNL: Catalysts via First Principles
PMP16, Singh, ANL: Compact Potentiometric NOx Sensor
PMP17, Singh, ANL: Residual Stress
PMP18, Sun, ORNL: NDE for ACERT Engine Components
PMP19, Watkins, ORNL: Catalyst Characterization
PMP20, Wereszczak, ORNL: Env. Effects on Power Electronic Devices
PMP21, Singh, ANL: Erosion of Materials by Nano-Fluids
PMP22, Smith, PNNL: Low Cost Titanium
PMP23, Anderson, AMES: Magnetic Material for PM motors (AMES)
PMP24, Allard, ORNL: Charact. of Catalyst Microstructures
High-Temperature Materials Laboratory
LMP01, Allard, ORNL: HTML Successes - TBD
LMP02, Payzant, ORNL: HTML Successes - TBD
LMP03, Hubbard, ORNL: HTML Successes - TBD
LMP04, Shyam, ORNL: HTML Successes - TBD
LMP05, Blau, ORNL: HTML Successes – Selection of a Wear-Resistant Tractor Drivetrain Material

Poster Session Guide

May 21, Thursday Poster Session

Salons B, C, J & H